

(FILE 'HOME' ENTERED AT 12:23:47 ON 17 MAY 2007)

FILE 'REGISTRY' ENTERED AT 12:24:01 ON 17 MAY 2007

L1 STRUCTURE UPLOADED  
L2 0 S L1

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE, AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS, CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB, DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 13:37:04 ON 17 MAY 2007  
SEA (STARCH OR AMYLOPECTIN OR POLYSACCHARIDE) AND (BRANCHED OR

-----  
1 FILE ADISCTI  
496 FILE AGRICOLA  
16 FILE ANABSTR  
13 FILE ANTE  
3 FILE AQUALINE  
109 FILE AQUASCI  
190 FILE BIOENG  
2082 FILE BIOSIS  
883 FILE BIOTECHABS  
883 FILE BIOTECHDS  
389 FILE BIOTECHNO  
977 FILE CABA  
4841 FILE CAPLUS  
55 FILE CEABA-VTB  
17 FILE CIN  
18 FILE CONFSCI  
1 FILE CROPB  
34 FILE CROPU  
10 FILE DDFB  
86 FILE DDFU  
3629 FILE DGENE  
146 FILE DISSABS  
10 FILE DRUGB  
134 FILE DRUGU  
6 FILE EMBAL  
872 FILE EMBASE  
688 FILE ESBIODBASE  
375 FILE FROSTI  
680 FILE FSTA  
1531 FILE GENBANK  
2346 FILE IFIPAT  
14 FILE KOSMET  
475 FILE LIFESCI  
1006 FILE MEDLINE  
21 FILE NTIS  
2 FILE NUTRACEUT  
33 FILE OCEAN  
981 FILE PASCAL  
2 FILE PHAR  
9 FILE PHIN  
401 FILE PROMT  
1 FILE PROUSDDR  
27 FILE RDISCLOSURE  
1963 FILE SCISEARCH  
660 FILE TOXCENTER  
80997 FILE USPATFULL  
11413 FILE USPAT2  
4 FILE VETU  
14 FILE WATER  
2043 FILE WPIDS  
18 FILE WPIFV  
2043 FILE WPINDEX

L3                    QUE (STARCH OR AMYLOPECTIN OR POLYSACCHARIDE) AND (BRANCHED OR

-----

FILE 'HCAPLUS' ENTERED AT 13:40:09 ON 17 MAY 2007

L4            223076 S (STARCH OR AMYLOPECTIN OR POLYSACCHARIDE)  
L5            166171 S BRANCH OR BRANCHED OR BRANCHING  
L6            162696 S HYDROXYETHYL OR HYDROXYALKYL OR HYDROXYPROPYL  
L7            4095 S (PLASMA OR BLOOD) (2A)EXPAND?  
L8            4841 S L4 AND L5  
L9            122 S L4 AND L5 AND L6  
L10           9 S L4 AND L5 AND L6 AND L7

FILE 'STNGUIDE' ENTERED AT 13:40:18 ON 17 MAY 2007

FILE 'HCAPLUS' ENTERED AT 13:41:23 ON 17 MAY 2007

FILE 'STNGUIDE' ENTERED AT 13:41:31 ON 17 MAY 2007

FILE 'HCAPLUS' ENTERED AT 13:41:55 ON 17 MAY 2007

L11           3895 S L8 AND (PY<2003 OR AY<2003 OR PRY<2003)  
L12           88 S L9 AND (PY<2003 OR AY<2003 OR PRY<2003)  
L13           9 S L10 AND (PY<2003 OR AY<2003 OR PRY<2003)

=> s (starch or amylopectin or polysaccharide) and (branched or branching or branch)

1	FILE ADISCTI
496	FILE AGRICOLA
16	FILE ANABSTR
13	FILE ANTE
3	FILE AQUALINE
109	FILE AQUASCI
190	FILE BIOENG
2082	FILE BIOSIS
883	FILE BIOTECHABS
883	FILE BIOTECHDS
389	FILE BIOTECHNO
977	FILE CABA
4841	FILE CAPLUS
55	FILE CEABA-VTB
17	FILE CIN
18	FILE CONFSCI
1	FILE CROPB
34	FILE CROPU
10	FILE DDFB
86	FILE DDFU
3629	FILE DGENE
146	FILE DISSABS
10	FILE DRUGB

25 FILES SEARCHED...

134	FILE DRUGU
6	FILE EMBAL
872	FILE EMBASE
688	FILE ESBIODASE
375	FILE FROSTI
680	FILE FSTA
1531	FILE GENBANK
2346	FILE IFIPAT
14	FILE KOSMET
475	FILE LIFESCI
1006	FILE MEDLINE
21	FILE NTIS
2	FILE NUTRACEUT
33	FILE OCEAN
981	FILE PASCAL

48 FILES SEARCHED...

2	FILE PHAR
9	FILE PHIN
401	FILE PROMT
1	FILE PROUSDDR
27	FILE RDISCLOSURE
1963	FILE SCISEARCH
660	FILE TOXCENTER
80997	FILE USPATFULL
11413	FILE USPAT2
4	FILE VETU
14	FILE WATER
2043	FILE WPIDS
18	FILE WPIFV
2043	FILE WPINDEX

52 FILES HAVE ONE OR MORE ANSWERS, 67 FILES SEARCHED IN STNINDEX

L3 QUE (STARCH OR AMYLOPECTIN OR POLYSACCHARIDE) AND (BRANCHED OR BRANCHING OR  
R BRANCH)

=> file hcaplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

	ENTRY	SESSION
FULL ESTIMATED COST	3.15	3.81

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FILE COVERS 1907 - 17 May 2007 VOL 146 ISS 21  
FILE LAST UPDATED: 15 May 2007 (20070515/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate

=> s (starch or amylopectin or polysaccharide)

```
      165523 STARCH
      6640 AMYLOPECTIN
      61084 POLYSACCHARIDE
L4      223076 (STARCH OR AMYLOPECTIN OR POLYSACCHARIDE)
```

=> s branch or branched or branching

```
      44927 BRANCH
      77523 BRANCHED
      54753 BRANCHING
L5      166171 BRANCH OR BRANCHED OR BRANCHING
```

=> s hydroxyethyl or hydroxyalkyl or hydroxypropyl

```
      108850 HYDROXYETHYL
      25625 HYDROXYALKYL
      45308 HYDROXYPROPYL
L6      162696 HYDROXYETHYL OR HYDROXYALKYL OR HYDROXYPROPYL
```

=> s (plasma or blood) (2a) expand?

```
      898796 PLASMA
      1304969 BLOOD
      136816 EXPAND?
L7      4095 (PLASMA OR BLOOD) (2A) EXPAND?
```

=> s L4 and L5

```
L8      4841 L4 AND L5
```

=> s L4 and L5 and L6

```
L9      122 L4 AND L5 AND L6
```

=> s L4 and L5 and L6 and L7

L10 9 L4 AND L5 AND L6 AND L7

=> file stnguide

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.60	6.41

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FILE CONTAINS CURRENT INFORMATION.  
LAST RELOADED: May 11, 2007 (20070511/UP).

=> file hcaplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.12	6.53

FILE 'HCAPLUS' ENTERED AT 13:41:23 ON 17 MAY 2007  
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FILE LAST UPDATED: 15 May 2007 (20070515/ED)

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This file contains CAS Registry Numbers for easy and accurate

=> s (py<2003 or AY<2003 or PRY<2003)

22885315 PY<2003  
4446381 AY<2003  
3919309 PRY<2003

SYSTEM LIMITS EXCEEDED - SEARCH ENDED

The search profile you entered was too complex or gave too many answers. Simplify or subdivide the query and try again. If you have exceeded the answer limit, enter DELETE HISTORY at an arrow prompt (=>) to remove all previous answers sets and begin at L1. Use the SAVE command to store any important profiles or answer sets before using DELETE HISTORY.

=> s L8 and L11

L11 NOT FOUND

The L-number entered could not be found. To see the definition of L-numbers, enter DISPLAY HISTORY at an arrow prompt (=>).

=> s L9 and L11

L11 NOT FOUND

The L-number entered could not be found. To see the definition of L-numbers, enter DISPLAY HISTORY at an arrow prompt (=>).

=> s L10 and L11

L11 NOT FOUND

The L-number entered could not be found. To see the definition of L-numbers, enter DISPLAY HISTORY at an arrow prompt (=>).

=> file stnguide

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.60	9.13

FILE 'STNGUIDE' ENTERED AT 13:41:31 ON 17 MAY 2007  
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FILE CONTAINS CURRENT INFORMATION.  
LAST RELOADED: May 11, 2007 (20070511/UP).

=> file hcaplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.06	9.19

FILE 'HCAPLUS' ENTERED AT 13:41:55 ON 17 MAY 2007  
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FILE COVERS 1907 - 17 May 2007 VOL 146 ISS 21  
FILE LAST UPDATED: 15 May 2007 (20070515/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate

=> s (py<2003 or AY<2003 or PRY<2003)

22885315 PY<2003  
4446381 AY<2003  
3919309 PRY<2003

SYSTEM LIMITS EXCEEDED - SEARCH ENDED

The search profile you entered was too complex or gave too many answers. Simplify or subdivide the query and try again. If you have exceeded the answer limit, enter DELETE HISTORY at an arrow prompt (=>) to remove all previous answers sets and begin at L1. Use the SAVE command to store any important profiles or answer sets before

using DELETE HISTORY.

=> s L8 and (py<2003 or AY<2003 or PRY<2003)

22885315 PY<2003  
4446381 AY<2003  
3919309 PRY<2003

L11 3895 L8 AND (PY<2003 OR AY<2003 OR PRY<2003)

=> s L9 and (py<2003 or AY<2003 or PRY<2003)

22885315 PY<2003  
4446381 AY<2003  
3919309 PRY<2003

L12 88 L9 AND (PY<2003 OR AY<2003 OR PRY<2003)

=> s L10 and (py<2003 or AY<2003 or PRY<2003)

22885315 PY<2003  
4446381 AY<2003  
3919309 PRY<2003

L13 9 L10 AND (PY<2003 OR AY<2003 OR PRY<2003)

=> file stnguide

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.60	11.79

FILE 'STNGUIDE' ENTERED AT 13:42:09 ON 17 MAY 2007  
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FILE CONTAINS CURRENT INFORMATION.  
LAST RELOADED: May 11, 2007 (20070511/UP).

=> d l13 1-9 ti  
YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y

L13 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN  
TI Highly-branched, low substituted starch products for  
use as plasma expanders

L13 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN  
TI Characterization of hydroxyethyl starch by polymer  
analysis for use as a plasma volume expander

L13 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN  
TI Comparison of the properties of dextran and hydroxyethyl  
starch substituted with benzene tetracarboxylate in terms of their  
use in blood transfusion

L13 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN  
TI Fine structure and hyperfine structure of clinically applied  
hydroxyethyl starch

L13 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN  
TI Hydroxyethyl starch as a plasma  
expander: physicochemical properties and enzymic degradation

L13 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

TI Studies on hydroxyethyl starch. Part I: Molecular characterization by size exclusion chromatography coupled with low-angle laser light scattering

L13 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

TI Characterization of hydroxyethyl starch used as a plasma expander

L13 ANSWER 8 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

TI Characterization of hydroxyethyl starch used as a plasma expander

L13 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

TI Hydroxyethyl starch. Fractionation and molecular weight. Distribution by gel chromatography

=> d l13 1-9 ti abs bib

YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y

L13 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

TI Highly-branched, low substituted starch products for use as plasma expanders

AB The invention concerns modified hydroxyethyl and hydroxypropyl starches for clin. use as plasma expanders that have a branching degree of 8-20 mol%, a substitution degree (MS) of 0.05-0.3 and mol. weight of 10,000-450,000. The products are used in peritoneal dialysis. According to expts. with rats, the products deplete faster from liver, spleen, lung and kidney than conventional starch products.

AN 2004:198158 HCAPLUS <<LOGINID::20070517>>

DN 140:223241

TI Highly-branched, low substituted starch products for use as plasma expanders

IN Henning, Klaus

PA Fresenius Kabi Deutschland G.m.b.H., Germany

SO Ger. Offen., 5 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10237442	A1	20040311	DE 2002-10237442	20020816 <--
	DE 10237442	B4	20040819		
	WO 2004022602	A1	20040318	WO 2003-EP8411	20030730 <--
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	AU 2003251668	A1	20040329	AU 2003-251668	20030730 <--
	EP 1530593	A1	20050518	EP 2003-793660	20030730 <--
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
	CN 1675248	A	20050928	CN 2003-819356	20030730 <--
	JP 2005539107	T	20051222	JP 2004-533291	20030730 <--



	US 2006032400	A1	20060216	US 2005-524424	20050722 <--
PRAI	DE 2002-10237442	A	20020816	<--	
	WO 2003-EP8411	W	20030730		

L13 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

TI Characterization of hydroxyethyl starch by polymer analysis for use as a plasma volume expander

AB Hydroxyethyl starch is currently finding increasing use as a basis material for plasma volume expanders. In clin. applications it is desirable to have a precise knowledge of the steric and chemical structure, as these affect the pharmacokinetics and pharmacol. Characterization involved the determination of the mean molar masses

and distribution functions of various hydroxyethyl starches, with molar masses ranging from 40,000 g/mol to 200,000 g/mol and degrees of substitution from 0.38 to 0.64, by means of size exclusion chromatog. followed by double detection (MALLS/RI). Hydrodynamic data (Staudinger indexes, Huggins consts. and equivalent diams.) were determined by viscometric means. The chemical structure of the hydroxyethyl starches were clarified by {1H}-13C NMR spectroscopy. Signal assignment for the {1H}-13C NMR spectra made it possible to carry out an absolute determination of the

molar, mean and partial degrees of substitution and the degree of branching. The partial degree of substitution of the carbon atom C-2 was found to constitute between 60 and 80% of the total degree of substitution. This value is significantly larger than the partial degrees of substitution at the atoms C-3 and C-6, which were found to contribute up to approx. 10% and 20% resp. of the total degree of substitution. Degrees of branching ranging from 3.1% to 5.5% were detected.

AN 1994:38094 HCAPLUS <<LOGINID::20070517>>

DN 120:38094

TI Characterization of hydroxyethyl starch by polymer analysis for use as a plasma volume expander

AU Kulicke, Werner Michael; Roessner, Dierk; Kull, Wiebke

CS Hamburg, Germany

SO Starch/Staerke (1993), 45(12), 445-50

CODEN: STARDD; ISSN: 0038-9056

DT Journal

LA English

L13 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

TI Comparison of the properties of dextran and hydroxyethyl starch substituted with benzene tetracarboxylate in terms of their use in blood transfusion

AB Solns. of dextran and hydroxyethyl starch are used as plasma substitutes but are not capable of carrying oxygen in vivo. To transform these solns. into blood substituents, it has been suggested that the natural oxygen-carrier protein, i.e. human Hb, is bound to these polymers. However, the polymers have to be modified so that in the protein conjugate Hb exhibits the appropriate oxygen-binding properties. Thus, covalent conjugates of oxyHb and of dextran substituted with benzene tetracarboxylate have been used and appear effective vascular oxygen carriers. The same procedure was applied to hydroxyethyl starch but this polysaccharide, because of its branched nature, could not be substituted with benzene tetracarboxylate without being highly crosslinked as evidenced by NMR and low-angle laser light-scattering analyses. In the Hb-hydroxyethyl starch covalent conjugates, the polymer-linked benzene tetracarboxylate groups are not easily accessible to the allosteric site of the protein as in the dextran conjugates, and therefore cannot improve its oxygen-binding properties.

AN 1993:219728 HCAPLUS <<LOGINID::20070517>>

DN 118:219728

TI Comparison of the properties of dextran and hydroxyethyl

starch substituted with benzene tetracarboxylate in terms of their use in blood transfusion

AU Huguet, Marie Laure; Prouchayret, Florence; Grandgeorge, Michel; Dellacherie, Edith  
CS Lab. Chim. Phys. Macromol., ENSIC, Nancy, 54001, Fr.  
SO Carbohydrate Polymers (1993), 20(2), 125-30  
CODEN: CAPOD8; ISSN: 0144-8617  
DT Journal  
LA English

L13 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

TI Fine structure and hyperfine structure of clinically applied hydroxyethyl starch

AB The Mark-Houwink-relations for different samples of clin. used hydroxyethyl starches were established by multi-detection HPGPC. In combination with the degree of branching, the degrees of substitution DS and the molar substitution MS for the different mol. regions were measured by gas chromatog. methylation anal. Within the mol. regions of nonreducing anhydroglucose units, branching units and linear units characteristic differences were found.. For hydroxyethyl starches which were prepared from enzymically hydrolyzed waxy corn starch by  $\alpha$ -Amylase, a significantly higher degree of branching was found than for samples prepared by acid hydrolysis. The clin. relevance of these results is discussed.

AN 1992:537593 HCAPLUS <<LOGINID::20070517>>

DN 117:137593

TI Fine structure and hyperfine structure of clinically applied hydroxyethyl starch

AU Sommermeyer, Klaus; Hildebrand, Ulrich; Cech, Franz; Pfitzer, Edith; Henning, Klaus; Weidler, Burghard  
CS Fresenius AG, Oberursel, 6370, Germany  
SO Starch/Staerke (1992), 44(5), 173-9  
CODEN: STARDD; ISSN: 0038-9056  
DT Journal  
LA German

L13 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

TI Hydroxyethyl starch as a plasma expander: physicochemical properties and enzymic degradation

AB Hydroxyethyl starch (HES) as a plasma expander was subjected to measurements of fundamental physicochem. properties as a polymer. In order to investigate the efficacy and security for the clin. use, enzymic degradation of HES was studied in vitro with *Bacillus amyloliquefaciens*  $\alpha$ -amylase (BLA) and with human plasma. A fast decrease of the intrinsic viscosity,  $\eta$ , of HES in the initial stage of degradation with BLA was followed by a gradual decrease and approach to limiting values, which depended on the samples. Original and degraded samples of HES were fractionated by gel filtration, and several properties of the fractions were measured. Different relations between  $\eta$  and weight average mol. wts. ( $M_w$ ) were obtained, and the structure and some properties of the fractions should be different among the original samples; HES is a highly branched polymer. Characteristics of HES were noticeable heterogeneities not only in the mol. weight spread over very wide region but also in the structure and the degree of substitution (D.S.) both inter- and intra-molecularly. Two samples of HES, 6-HES and Hessol, having high values of  $M_w$  and d.s., contained fractions of very high mol. weight and were degraded insufficiently with enzyme. Remaining fragments of high-mol. weight could not permeate the kidney membrane, suggesting the possibilities of remaining and/or accumulation of them in human bodies. On the other hand, Hespander, having small a  $M_w$  and d.s. was degraded as fast as amylopectin. In this HES the substitution of hydroxyethyl groups into amylopectin do not affect the validity to prolong the persistence time of the plasma expander. Considerable amount of small mols. in

Hesponder, contained originally and produced by degradation, could be excreted rapidly and may impair the kidney function, besides the very small mols. may be released through vascular wall resulting in the reduction of efficacy as the plasma expander and the possibilities of accumulation into organs and tissues in human bodies. Thus, the efficacy and security of the present products of HES are not reliable as plasma expanders, and further investigations and improvements should be required for the clin. use.

AN 1987:502587 HCAPLUS <<LOGINID::20070517>>

DN 107:102587

TI Hydroxyethyl starch as a plasma expander: physicochemical properties and enzymic degradation

AU Ohta, Kazuko; Kawahara, Kazuo

CS Sch. Pharm. Sci., Nagasaki Univ., Nagasaki, Japan

SO Seitai Zairyo (1987), 5(1), 3-13

CODEN: SEZAEH; ISSN: 0910-304X

DT Journal

LA Japanese

L13 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

TI Studies on hydroxyethyl starch. Part I: Molecular characterization by size exclusion chromatography coupled with low-angle laser light scattering

AB Two com. available hydroxyethyl starch (HES) [9005-27-0] preps. (in clin. use as plasma expanders) specified with .hivin.Mw = 450,000/MS = 0.7 and .hivin.Mw = 200,000/MS = 0.5, resp., and 3 exptl. HES-samples (supposedly similar to the com. product with the specification 450,000/0.7, except of one with MS = 0.5) were studied. The latter were prepared via acid or enzymic hydrolysis of waxy-maize starch. Each of the samples was characterized by its intrinsic viscosity and molar substitution, and was studied with low-angle laser light scattering (LALLS) and with size exclusion chromatog. (SEC) coupled with LALLS. The weight-average mol. weight .hivin.Mw of the com. samples

was 60-80% higher than the value given in the product declaration. This discrepancy can be explained by the argument that previous measurements were not carried out at sufficiently small scattering angles to enable reliable extrapolation to zero angle. The calibration functions .hivin.Mw(v) of the individual HES samples measured by SEC/LALLS-coupling are identical over a broad range of the elution volume v. The small, but detectable differences in the .hivin.Mw(v)-functions indicate interesting differences between these HES-preps. with respect to the effective hydrodynamic d. of the branched HES-mols.

AN 1985:225972 HCAPLUS <<LOGINID::20070517>>

DN 102:225972

TI Studies on hydroxyethyl starch. Part I: Molecular characterization by size exclusion chromatography coupled with low-angle laser light scattering

AU Lederer, K.; Huber, C.; Dunky, M.; Fink, J. K.; Ferber, H. P.; Nitsch, E.

CS Inst. Chem. Phys. Technol. Kunststoffe, Montanuniv. Leoben, Austria

SO Arzneimittel-Forschung (1985), 35(3), 610-14

CODEN: ARZNAD; ISSN: 0004-4172

DT Journal

LA English

L13 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

TI Characterization of hydroxyethyl starch used as a plasma expander

AB Intrinsic viscosities, and number and weight average mol. wts. were determined for a com.

sample of hydroxyethyl starch (I) [9005-27-0] and its fractions. The exponent a of the Mark-Houwink equation was 0.27 for 0.1 M-NaCl aqueous solution and 0.24 for DMF solution, showing that I has many branches.

Compared with the mol. weight,  $M_w = 18.45 \times 10^4$ , the viscosity was very low, 0.165 dL/g in H<sub>2</sub>O, possibly because of such a highly branched mol. configuration.

AN 1979:478833 HCAPLUS <<LOGINID::20070517>>

DN 91:78833

TI Characterization of hydroxyethyl starch used as a plasma expander

AU Sakamoto, Ryuichi; Kojima, Tokuhisa; Yamaguchi, Shizuo

CS Fac. Eng., Univ. Gifu, Gifu, Japan

SO Gifu Daigaku Kogakubu Kenkyu Hokoku (1979), (29), 22-6  
CODEN: GDKHAO; ISSN: 0376-0332

DT Journal

LA English

L13 ANSWER 8 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

TI Characterization of hydroxyethyl starch used as a plasma expander

AB The plasma expander hydroxyethyl

starch [9005-27-0] was prepared from hydrolyzed corn starch

[9005-25-8] and ethylene oxide [75-21-8], and its viscosity, osmotic pressure, light scattering measurement, and other phys. properties were determined. The mol. weight of the preparation ranged from  $1.84 \times 10^4$  to  $10.3 \times 10^4$

as

determined by the osmotic pressure method, and from 4.7 to  $40.08 \times 10^4$  by the light scattering method. The exponents of the Mark-Houwink equation indicated that the preparation was a highly branched polymer. The clin. application of the plasma expander is discussed.

AN 1977:444216 HCAPLUS <<LOGINID::20070517>>

DN 87:44216

TI Characterization of hydroxyethyl starch used as a plasma expander

AU Sakamoto, Ryuichi; Kojima, Tokuhisa; Yamaguchi, Shizuo

CS Fac. Technol., Gifu Univ., Kakamigahara, Japan

SO Kobunshi Ronbunshu (1977), 34(4), 275-9

CODEN: KBRBA3; ISSN: 0386-2186

DT Journal

LA Japanese

L13 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

TI Hydroxyethyl starch. Fractionation and molecular weight. Distribution by gel chromatography

AB The mol. weight distribution (.hivin. $M_w$ ) of fractions of hydroxyethyl starch (I), obtained by preparative gel chromatog., are determined by

light scattering, osmometry, and viscometry. I was prepared by gelatinizing waxy maize starch in boiling H<sub>2</sub>O, hydrolyzing partially with

dilute HCl, neutralizing the resulting solution, and treating with ethylene oxide. The substitution degree was determined by Morgan's method (1946). I had .hivin. $M_w$  of 77,000, as compared to 55,000 for dextran. In solution the dextran mol. is more extended than the heavily branched I mol.

The use of I as plasma volume expander is discussed.

AN 1970:45255 HCAPLUS <<LOGINID::20070517>>

DN 72:45255

TI Hydroxyethyl starch. Fractionation and molecular weight. Distribution by gel chromatography

AU Granath, Kirsti; Stromberg, Ragnar; De Belder, A. N.

CS Res. Div., Pharm. AB, Uppsala, Swed.

SO Staerke (1969), 21(10), 251-6

CODEN: STRKA6; ISSN: 0038-9056

DT Journal

LA English

=> d his

(FILE 'HOME' ENTERED AT 12:23:47 ON 17 MAY 2007)

FILE 'REGISTRY' ENTERED AT 12:24:01 ON 17 MAY 2007

L1 STRUCTURE UPLOADED  
L2 0 S L1

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE, AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS, CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB, DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 13:37:04 ON 17 MAY 2007  
SEA (STARCH OR AMYLOPECTIN OR POLYSACCHARIDE) AND (BRANCHED OR

-----  
1 FILE ADISCTI  
496 FILE AGRICOLA  
16 FILE ANABSTR  
13 FILE ANTE  
3 FILE AQUALINE  
109 FILE AQUASCI  
190 FILE BIOENG  
2082 FILE BIOSIS  
883 FILE BIOTECHABS  
883 FILE BIOTECHDS  
389 FILE BIOTECHNO  
977 FILE CABA  
4841 FILE CAPLUS  
55 FILE CEABA-VTB  
17 FILE CIN  
18 FILE CONFSCI  
1 FILE CROPB  
34 FILE CROPU  
10 FILE DDFB  
86 FILE DDFU  
3629 FILE DGENE  
146 FILE DISSABS  
10 FILE DRUGB  
134 FILE DRUGU  
6 FILE EMBAL  
872 FILE EMBASE  
688 FILE ESBIODBASE  
375 FILE FROSTI  
680 FILE FSTA  
1531 FILE GENBANK  
2346 FILE IFIPAT  
14 FILE KOSMET  
475 FILE LIFESCI  
1006 FILE MEDLINE  
21 FILE NTIS  
2 FILE NUTRACEUT  
33 FILE OCEAN  
981 FILE PASCAL  
2 FILE PHAR  
9 FILE PHIN  
401 FILE PROMT  
1 FILE PROUSDDR  
27 FILE RDISCLOSURE  
1963 FILE SCISEARCH  
660 FILE TOXCENTER  
80997 FILE USPATFULL  
11413 FILE USPAT2  
4 FILE VETU  
14 FILE WATER  
2043 FILE WPIDS  
18 FILE WPIFV  
2043 FILE WPINDEX

L3                    QUE (STARCH OR AMYLOPECTIN OR POLYSACCHARIDE) AND (BRANCHED OR

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FILE 'HCAPLUS' ENTERED AT 13:40:09 ON 17 MAY 2007  
L4        223076 S (STARCH OR AMYLOPECTIN OR POLYSACCHARIDE)  
L5        166171 S BRANCH OR BRANCHED OR BRANCHING  
L6        162696 S HYDROXYETHYL OR HYDROXYALKYL OR HYDROXYPROPYL  
L7        4095 S (PLASMA OR BLOOD) (2A)EXPAND?  
L8        4841 S L4 AND L5  
L9        122 S L4 AND L5 AND L6  
L10       9 S L4 AND L5 AND L6 AND L7

FILE 'STNGUIDE' ENTERED AT 13:40:18 ON 17 MAY 2007

FILE 'HCAPLUS' ENTERED AT 13:41:23 ON 17 MAY 2007

FILE 'STNGUIDE' ENTERED AT 13:41:31 ON 17 MAY 2007

FILE 'HCAPLUS' ENTERED AT 13:41:55 ON 17 MAY 2007  
L11       3895 S L8 AND (PY<2003 OR AY<2003 OR PRY<2003)  
L12       88 S L9 AND (PY<2003 OR AY<2003 OR PRY<2003)  
L13       9 S L10 AND (PY<2003 OR AY<2003 OR PRY<2003)

FILE 'STNGUIDE' ENTERED AT 13:42:09 ON 17 MAY 2007

FILE 'HCAPLUS' ENTERED AT 13:42:25 ON 17 MAY 2007

FILE 'STNGUIDE' ENTERED AT 13:42:25 ON 17 MAY 2007

FILE 'HCAPLUS' ENTERED AT 13:42:49 ON 17 MAY 2007

FILE 'STNGUIDE' ENTERED AT 13:42:49 ON 17 MAY 2007

=> log hold

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.06	45.70
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-7.02

SESSION WILL BE HELD FOR 120 MINUTES  
STN INTERNATIONAL SESSION SUSPENDED AT 13:42:56 ON 17 MAY 2007

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSPTAEXO1623

PASSWORD:

\* \* \* \* \* RECONNECTED TO STN INTERNATIONAL \* \* \* \* \*  
SESSION RESUMED IN FILE 'STNGUIDE' AT 14:30:48 ON 17 MAY 2007  
FILE 'STNGUIDE' ENTERED AT 14:30:48 ON 17 MAY 2007  
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AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.06	45.70

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-7.02

=> file hcaplus  
COST IN U.S. DOLLARS

	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.12	45.76

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-7.02

FILE 'HCAPLUS' ENTERED AT 14:32:02 ON 17 MAY 2007  
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FILE COVERS 1907 - 17 May 2007 VOL 146 ISS 21  
FILE LAST UPDATED: 15 May 2007 (20070515/ED)

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This file contains CAS Registry Numbers for easy and accurate

=> s peritoneal(w)dialysis

32238 PERITONEAL  
57952 DIALYSIS  
L14 3324 PERITONEAL(W)DIALYSIS

=> s l9 and l14

L15 1 L9 AND L14

=> s L15 and (AY<2003 or PY<2003 or PRY<2003)

4446381 AY<2003  
22885315 PY<2003  
3919309 PRY<2003  
L16 1 L15 AND (AY<2003 OR PY<2003 OR PRY<2003)

=> file stnguide

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	2.60	48.36

  

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-7.02

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FILE CONTAINS CURRENT INFORMATION.  
 LAST RELOADED: May 11, 2007 (20070511/UP).

=> d l15 ti abs bib  
 YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y

L15 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2007 ACS on STN  
 TI Highly-branched, low substituted starch products for  
 use as plasma expanders  
 AB The invention concerns modified hydroxyethyl and  
 hydroxypropyl starches for clin. use as plasma expanders that have  
 a branching degree of 8-20 mol%, a substitution degree (MS) of  
 0.05-0.3 and mol. weight of 10,000-450,000. The products are used in  
 peritoneal dialysis. According to expts. with rats, the  
 products deplete faster from liver, spleen, lung and kidney than  
 conventional starch products.  
 AN 2004:198158 HCAPLUS <<LOGINID::20070517>>  
 DN 140:223241  
 TI Highly-branched, low substituted starch products for  
 use as plasma expanders  
 IN Henning, Klaus  
 PA Fresenius Kabi Deutschland G.m.b.H., Germany  
 SO Ger. Offen., 5 pp.  
 CODEN: GWXXBX  
 DT Patent  
 LA German  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10237442	A1	20040311	DE 2002-10237442	20020816
	DE 10237442	B4	20040819		
	WO 2004022602	A1	20040318	WO 2003-EP8411	20030730
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				
	CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,				
	GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,				
	LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,				
	PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,				
	TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,				
	KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,				
	FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,				
	BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2003251668	A1	20040329	AU 2003-251668	20030730
	EP 1530593	A1	20050518	EP 2003-793660	20030730
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				
	IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	CN 1675248	A	20050928	CN 2003-819356	20030730
	JP 2005539107	T	20051222	JP 2004-533291	20030730
	US 2006032400	A1	20060216	US 2005-524424	20050722
PRAI	DE 2002-10237442	A	20020816		
	WO 2003-EP8411	W	20030730		

=> file hcaplus  
 COST IN U.S. DOLLARS  
 FULL ESTIMATED COST

SINCE FILE	TOTAL
ENTRY	SESSION
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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-7.80

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FILE COVERS 1907 - 17 May 2007 VOL 146 ISS 21  
 FILE LAST UPDATED: 15 May 2007 (20070515/ED)

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This file contains CAS Registry Numbers for easy and accurate

=> s L8 and L14

L17 4 L8 AND L14

=> s L16 and (AY<2003 or PY<2003 or PRY<2003)

4446381 AY<2003  
 22885315 PY<2003  
 3919309 PRY<2003

L18 1 L16 AND (AY<2003 OR PY<2003 OR PRY<2003)

=> file stnguide

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	2.60	56.57

  

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-7.80

FILE 'STNGUIDE' ENTERED AT 14:33:33 ON 17 MAY 2007  
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FILE CONTAINS CURRENT INFORMATION.  
 LAST RELOADED: May 11, 2007 (20070511/UP).

=> d l17 1-4 ti

YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y

L17 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2007 ACS on STN  
 TI Use of limit  $\beta$ -dextrin as osmotic agent for peritoneal

dialysis produced from amylopectin-containing starch fractions

L17 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2007 ACS on STN

TI Soluble polymers of highly branched glucose

L17 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2007 ACS on STN

TI Highly-branched, low substituted starch products for use as plasma expanders

L17 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2007 ACS on STN

TI Soluble highly branched glucose polymers prepared by enzymic modification of starch or starch derivatives

=> d l17 1 2 4 ti abs bib

YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y

L17 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2007 ACS on STN

TI Use of limit  $\beta$ -dextrin as osmotic agent for peritoneal dialysis produced from amylopectin-containing starch fractions

AB The invention concerns the use of limit  $\beta$ -dextrin prepared from amylopectin-containing starch fractions as osmotic agent in peritoneal dialysis; the use of limit  $\beta$ -dextrin reduces the chance for the accumulation of low mol. weight oligomeric glucose. Thus 20% thin boiling wax corn starch solution was hydrolyzed with hydrochloric acid; low mol. weight fractions were removed with a 5 kDa cut-off ultrafilter. The retained fraction was treated with  $\beta$ -amylase to produce limit  $\beta$ -dextrin with average mol. weight of 55 kD and medium branching degree of 12 mol%.

AN 2006:1180602 HCAPLUS <<LOGINID::20070517>>

DN 145:460593

TI Use of limit  $\beta$ -dextrin as osmotic agent for peritoneal dialysis produced from amylopectin-containing starch fractions

IN Sommermeyer, Klaus

PA Supramol Parenteral Colloids G.m.b.H., Germany

SO Ger. Offen., 3pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	DE 102005020932	A1	20061109	DE 2005-102005020932	20050504
PRAI	DE 2005-102005020932		20050504		

L17 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2007 ACS on STN

TI Soluble polymers of highly branched glucose

AB The invention relates to highly branched soluble polymers of glucose having a reducing sugar content lower than 1%, a content of  $\alpha$ -1,6-glucosidic bonds 13-17% and mol. weight (0.9-1.5)  $\times$  105, characterized by the fact that the distribution profile of branch chain lengths is 70-85% of d.p. <15, 10-16% of d.p. 15-25 and 8-13% of d.p. >25. These polymers are manufactured by successive treatment of a  $\geq$ 30% aqueous starch solution with a branching enzyme and then with  $\beta$ -amylase and fractionation of high-mol.-weight material.

AN 2005:549741 HCAPLUS <<LOGINID::20070517>>

DN 143:61671

TI Soluble polymers of highly branched glucose

IN Fuertes, Patrick; Roturier, Jean Michel; Petitjean Reiland, Carole

PA Roquette Freres, Fr.  
SO Fr. Demande, 38 pp.  
CODEN: FRXXBL  
DT Patent  
LA French  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2864088	A1	20050624	FR 2003-15085	20031219
	FR 2864088	B1	20060428		
	CA 2491278	A1	20050619	CA 2004-2491278	20041217
	NO 2004005555	A	20050620	NO 2004-5555	20041220
	KR 2005062462	A	20050623	KR 2004-108970	20041220
	EP 1548033	A2	20050629	EP 2004-293056	20041220
	EP 1548033	A3	20051026		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
	AU 2004240206	A1	20050707	AU 2004-240206	20041220
	US 2005159329	A1	20050721	US 2004-15640	20041220
	JP 2005213496	A	20050811	JP 2004-367217	20041220
	CN 1654480	A	20050817	CN 2004-10103262	20041220
PRAI	FR 2003-15085	A	20031219		

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2007 ACS on STN

TI Soluble highly branched glucose polymers prepared by enzymic  
modification of starch or starch derivatives

AB Soluble highly branched glucose polymers with a reducing-sugar  
content of  $\leq 1\%$  are characterized by  $>10\%$  (preferably 12-30%)  
 $\alpha$ -1,6 glucosidic linkages, a mol. weight of  $0.35 \times 10^5$  to  $2 \times 10^5$   
daltons, and an osmolality of 1-15 mOsm/kg. The glucose  
polymers are obtained by incubating starch or a starch  
derivative with a branching enzyme (e.g., Bacillus  
stearothermophilus glycogen-branching enzyme) and by subsequent  
treatment with a hydrolytic enzyme (e.g., amylase or amyloglucosidase) or  
 $\alpha$ -transglucosidase. Membrane or chromatog. techniques are used to  
recover the high-mol.-weight fractions. The glucose polymers have particular  
application in enteral and parenteral nutrition, in peritoneal  
dialysis, as inhibitors and(or) regulators in glycemia, as an  
energy source for phys. activity, and a regulator of digestion. The  
polymers may also have application in the paper and paperboard industry,  
in textiles, and cosmetics.

AN 2003:969394 HCAPLUS <<LOGINID::20070517>>

DN 140:19856

TI Soluble highly branched glucose polymers prepared by enzymic  
modification of starch or starch derivatives

IN Backer, Daniel; Saniez, Marie-Helene

PA Roquette Freres, Fr.

SO Eur. Pat. Appl., 18 pp.

CODEN: EPXXDW

DT Patent

LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1369432	A2	20031210	EP 2003-291325	20030603
	EP 1369432	A3	20040211		
	EP 1369432	B1	20060809		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	FR 2840612	A1	20031212	FR 2002-6952	20020606
	FR 2840612	B1	20050506		

AT 335767	T	20060915	AT 2003-291325	20030603
US 2004014961	A1	20040122	US 2003-454225	20030604
US 6861519	B2	20050301		
CA 2430557	A1	20031206	CA 2003-2430557	20030605
JP 2004161998	A	20040610	JP 2003-161125	20030605
CN 1468867	A	20040121	CN 2003-142428	20030606
US 2005142167	A1	20050630	US 2005-66423	20050228
US 7211662	B2	20070501		
PRAI FR 2002-6952	A	20020606		
US 2003-454225	A3	20030604		